REMARKS

Status of the Application

Claims 1-29 are pending in the application. Claims 1-29 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 29 is rejected under 35 U.S.C. § 112, second paragraph, as failing to comply with the written description requirement. Claims 1-2, 19 and 22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Takasugi et al. (US Patent 5,358,021). Claims 1-2, 15-24, 27 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi and optionally Landers (US Patent 5,176,766) and, with respect to claims 16-18, 20-21 and 27, official notice is taken. Claims 3, 5 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi et al. and optionally Landers as applied above and further in view of newly cited Japan '408 (JP 03-186408) and newly cited Takigawa et al. (US Patent 4,214,618). Claims 4, 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi and optionally Landers and further in view of Japan '408 and Takigawa et al. as applied above and further in view of newly cited Japan '511 (JP 2002-225511) and Japan '107 (JP 62-059107). Claims 9-12 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi et al. and optionally Landers and further in view of Japan '408 and Takigawa as applied above and further in view of newly cited Europe '104 (EP 810104) and newly cited Emerson (US Patent 5,421,387) and official notice. Claims 13, 14 and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi et al. and optionally Landers as applied above and further in view of German '159 (DE 3738159). Claim 25 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi et al. and optionally Landers as applied above and further in view of newly cited Japan '915 (JP 2002-192915).

By this Amendment, Applicants hereby amend claims 1, 20 and 29.

Claim Rejections - 35 U.S.C. § 112

Claims 1-29 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner alleges that the phrase "which designates directions" would not reasonably appraise one of ordinary skill in the art as to the scope of protection afforded by this language. The Examiner further indicates that it is not clear if the phrase relates to 1) the intended use, or 2) an additional structure, of the tire.

Applicants respectfully submit that the phrase "which designates directions" is defined in the body of the claim as being determined by the sum of groove volume at an axially inner side being made smaller than the sum of groove volume at an axially outer side. In other words, the tire is constructed such that the sum of the groove volume determines which axial side of the tire is designated to each of the inner and outer side of the vehicle.

Further, the Examiner identified other deficiencies in claims 1 and 29. Applicants hereby amend claims 1 and 29 in order to correct the noted deficiencies.

Claim 29 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

The Examiner alleges that the claim language "at least one pneumatic tire" is insufficient, since the specification fails to disclose a vehicle having only a single tire. Applicants hereby amend claim 29 to correct the noted deficiencies.

Prior Art Rejections

Claims 1-2, 19 and 22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Takasugi et al. (US Patent 5,358,021).

Claims 1-2, 15-24, 27 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi and optionally Landers (US Patent 5,176,766) and, with respect to claims 16-18, 20-21 and 27, official notice is taken.

Claim 1, as amended to incorporate a feature of claim 20, recites, in part, "a groove depth of the slant groove is deepened from the side of the equatorial line toward the side of the tread end of the slant groove." The Examiner alleges that Takasugi discloses each of the features of claim 1. Based on the amendments to claim 1, Applicants respectfully disagree.

The Examiner concedes that Takasugi fails to disclose that a groove depth of the slant groove is deepened from the side of the equatorial line toward the side of the tread end of the slant groove. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) be withdrawn.

With regard to the subject matter of claim 20, the Examiner alleges that it would have been obvious to one of ordinary skill in the art to change the depth of the lateral grooves because it is well known in the art (i.e., the Examiner takes "Official Notice" of this feature). Applicants respectfully disagree.

Applicants respectfully note that none of the references cited by the Examiner in rejecting claim 20 (or any of the other claims) discloses a groove depth of the slant groove is deepened from the side of the equatorial line toward the side of the tread end of the slant groove. At best, JP '408 (cited in rejecting claims 3, 5 and 8) discloses a depth ratio between a main groove and an auxiliary groove. However, JP 408 is silent about a groove depth being deepened.

Applicants respectfully submit that claim 1 is patentable over the applied art, because the groove deepening feature **in combination with the other features of claim 1** would not be obvious to one of ordinary skill in the art. Specifically, the combination of 1) "a plurality of slant grooves extending at an average inclination angle of not less than 45° with respect to a widthwise direction of the tread are arranged in a second inner land part row located adjacent to a shoulder land part row, at a side of the equatorial line thereof, at the axially inner side" (this feature will be referred to as **"feature 1"** hereinafter), and 2) a "a groove depth of the slant groove is deepened from the side of the equatorial line toward the side of the tread end of the slant groove" (this feature will be referred to as **"feature 2**" hereinafter) would not be obvious to one of ordinary skill in the art.

The unique combination of feature 1 and feature 2 causes the following superior effects in an exemplary embodiment of claim 1: 1) good drainage properties are ensured by feature 1 above because the slant grooves extend substantially along with flow lines of water, thereby facilitating smooth water flow; 2) good drainage properties are further ensured by feature 2 because the varied depth of the slant groove facilitates water flow; and 3) a corner portion, on the side of the equatorial line, of each block in the second inner land part row of the axially inner side, having *relatively low rigidity* because of an *increased* inclination angle of the slant groove at the portion, is reinforced by feature 2. In other words, a problem associated with feature 1 is compensated for by feature 2, to "simultaneously establish the sufficient drainage performance and the high land part rigidity" (see paragraph [0155] of US 2005/0257870 Al (the publication no. of the instant specification).

Since none of these cited references discloses the superior effects of the combination of feature 1 and feature 2, as described above, Applicants submit that combining feature 1 and

feature 2, as recited in amended claim 1, would have not been obvious even to a person skilled in the art when the present invention was made.

Additionally, with regard to the Examiner's use of Official Notice in rejecting the subject matter of claim 20, both in the instant rejection, and each of the following rejections, Applicants respectfully submit the following.

MPEP 2144.03 has specific guidelines for when official notice may be taken. Specifically, "official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known." MPEP 2144.03A. Further, "the notice of facts beyond the record which may be taken by the examiner must be 'capable of such instant and unquestionable demonstration as to defy dispute' (citing *In re Knapp Monarch Co.*, 296 F.2d 230 (CCPA 1961))." *In re Ahlert*, 424 F.2d. 1088, 1091 (CCPA 1970); see also MPEP 2144.03A.

An Examiner may not rely on official or judicial notice at the exact point where patentable novelty is argued, but must come forward with pertinent prior art. *See Ex parte Cady*, 148 USPQ 162 (Pat. Off. Bd. App. & Inter. 1965). Thus, the Examiner's reliance upon official notice should not be maintained since the Examiner has taken official notice on issues where patentable novelty is asserted. In each of the rejections, the Examiner is claiming Official Notice where patentable novelty is asserted. For example, with respect to claim 20, the Examiner alleges that "changing lateral groove depth to affect water drainage … is taken as well known/conventional per se" (see page 9 of the Office Action). However, in an exemplary embodiment of claim 20, as described on page 21, lines 20-17 of the instant specification, Applicants respectfully note that changing the groove depth not only improves drainage, but

ensures block rigidity. This combination of simultaneously establishing resistance to hydroplaning and providing steering stability by changing the groove depths is not disclosed by the applied art. Therefore, the Examiner is incorrectly applying Official Notice at a point of patentability, and Official Notice should be withdrawn.

Accordingly, Applicants respectfully submit that claim 1 is patentable over the Examiners' proposed combination of references. Claims 2, 15-24, 27 and 29 are patentable at least by virtue of their dependency from claim 1.

Claims 3, 5 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi et al. and optionally Landers as applied above and further in view of Japan '408 (JP 03-186408) and Takigawa et al. (US Patent 4,214,618).

Claims 3, 5 and 8 depend from amended claim 1. Because the Examiner's proposed combination of Takasugi and Landers fails to render amended claim 1 obvious, and because Japan '408 and Takigawa fail to cure the deficiencies noted with respect to amended claim 1, claims 3, 5 and 8 are patentable over the applied art.

Claims 4, 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi and optionally Landers and further in view of Japan '408 and Takigawa et al. as applied above and further in view of Japan '511 (JP 2002-225511) and Japan '107 (JP 62-059107).

Claims 4, 6 and 7 depend from amended claim 1. Because the Examiner's proposed combination of Takasugi and Landers fails to render amended claim 1 obvious, and because Japan '408, Takigawa, Japan '511 and Japan '107 fail to cure the deficiencies noted with respect to amended claim 1, claims 4, 6 and 7 are patentable over the applied art.

Claims 9-12 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi et al. and optionally Landers and further in view of Japan '408 and Takigawa as applied above and further in view of Europe '104 (EP 810104) and Emerson (US Patent 5,421,387) and official notice.

Claims 9-12 and 26 depend from amended claim 1. Because the Examiner's proposed combination of Takasugi and Landers fails to render amended claim 1 obvious, and because Japan '408, Takigawa, Europe '104 and Emerson fail to cure the deficiencies noted with respect to amended claim 1, claims 9-12 and 26 are patentable over the applied art.

Claims 13, 14 and 28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi et al. and optionally Landers as applied above and further in view of German '159 (DE 3738159).

Claims 13, 14 and 28 depend from amended claim 1. Because the Examiner's proposed combination of Takasugi and Landers fails to render amended claim 1 obvious, and because German '159 fails to cure the deficiencies noted with respect to amended claim 1, claims 13, 14 and 28 are patentable over the applied art.

Claim 25 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Takasugi et al. and optionally Landers as applied above and further in view of Japan '915 (JP 2002-192915).

Claims 25 depend from amended claim 1. Because the Examiner's proposed combination of Takasugi and Landers fails to render amended claim 1 obvious, and because Japan '915 fails to cure the deficiencies noted with respect to amended claim 1, claims 25 is patentable over the applied art.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: September 18, 2009